Issue 01 (NOR-1) *Status* Closed

Author: Haenisch, Jochen *Disposition:* Accepted

Clause: 3

Class'n: Editorial

Description:

Currently the term "template" is not defined in the document although mapping templates are introduced in this edition and although the term is not self-explaining.

Proposed resolution:

Define the term "template" in clause 3.

Actual resolution:

Definition added as follows:

mapping template
reusable portion of a reference path that defines a commonly used part of the structure of an application interpreted model

Issue 02 (NOR-2) *Status* Closed

Author: Haenisch, Jochen *Disposition:* Accepted

Clause: 4 (last sentence of page 4)

Class'n: Editorial

Description:

The last sentence of the first paragraph does not make sense.

Proposed resolution:

Remove "benefits from this concept".

Actual resolution:

Accept proposed resolution - see also USA-27.

Issue 03 (NOR-3) *Status* Closed

Author: Haenisch, Jochen *Disposition:* Accepted

Clause: 6

Class'n: Minor Technical

Description:

The document still leaves some questions open in case of rather detailled ARMs. Among those is the following: Shall inherited attributes be mapped locally, i.e., in all subtypes, or only for the Application Object where they are originally defined - or both? This has an impact on the relevance of the subtype/supertype templates.

Proposed resolution:

Allow for mapping of attributes any place in an inheritance tree. Subtype/supertype templates may be used to avoid redundant mappings. Mapping on a semantically high and abstract level may help to maintan clarity a mapping specification.

Actual resolution:

See also USA-6. The following points form the basis for the resolution of this issue:

1. QC's position is that APs should not include complex subtype/supertype structures (and especially not abstract supertypes) in an ARM. Subtyping at the ARM level should reflect domain taxonomies, not the analysis approach applied by ARM developers. However, noted that such ARMs do exist and an approach to mapping them has to be documented.
2. The structure of the mapping specification reflects that of the ARM; by default, application elements are mapped based on the position of their declaration in the ARM structure.
3. ABSTRACT supertypes are mapped.
4. Attributes of ABSTRACT supertypes are mapped.
5. The /SUBTYPE( )/ and /SUPERTYPE( )/ templates can be used to ensure consistency and cross-referencing of mappings within an ARM subtype/supertype structure.
6. Attributes/relationships that are declared in a supertype will be mapped in subtypes only if the mappings are different in the subtypes. In this case /SUBTYPE()/ should be used in OR case(s) in the mapping specification for the supertype.
7. However, an AP can repeat the mappings of inherited attributes (using /SUPERTYPE()/ if there is a requirement/desire to do so. This must be done consistently - if used once, must be used for the whole AP.

Issue 04 (NOR-4) *Status* Closed

Author: Haenisch, Jochen *Disposition:* Accepted

Clause: 4

Class'n: Editorial

Description:

The document sometimes uses the term "mapping body" to describe the contents of a mapping template. In other cases it is called "template body".

Proposed resolution:

Replace globally "mapping body" by "template body".

Actual resolution:

Accept proposed resolution.

Issue 05 (NOR-5) *Status* Closed

Author: Haenisch, Jochen *Disposition:* Accepted

Clause: 9.6

Class'n: Editorial

Description:

Examples 1 and 2 use a wrong clause numbering scheme.

Proposed resolution:

In examples 1 and 2 of clause 9.6 replace "5.1.x.y.z" by "5.1.x.y"

Actual resolution:

Accept proposed resolution.

Issue 06 (USA-1) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: new annex

Class'n: Major Technical

Description:

A formal syntax has been a requested aspect of this document since the first standing document ballot. EXPRESS-X has been proposed as a solution to this requirement, but it agreed that even if EXPRESS-X provides the necessary capabilities for reference path syntax, its not yet stable and guidelines for its use must yet be developed. An interim solution was proposed in Bordeaux that is aligned with the mapping specification document under ballot.

Proposed resolution:

The formal specification of the reference path language proposed by LKSoft and modified as agreed to in the Bordeaux meeting on mapping table improvements (minutes QC N155) should be included in an annex to the Mapping Specifications document. It should be designated for experimental use. Text at the beginning of the annex (and also in the document introduction) should state something like, "This formal syntax is considered experimental. STEP projects may use it at their own risk. After at least one standard has passed DIS ballot using this technology, SC4 may choose to approve its use for all projects. Such approval may be in the form of an SC4 resolution or a new edition of this document."

Actual resolution:

Final resolution from QC meeting San Francisco (6/01): circulate LKSoft documents (QC N163, 203) for review by QC, WG3, JWG9. Include same material in an annex of the Guidelines with a note stating that the syntax is experimental (as suggested above) and may not match technical content of the rest of the guidelines,

Issue 07 (USA-2) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: Annex C

Class'n: Major Technical

Description:

As its stands right now most projects are building their CD documents outside of SC4 and under PWIs. This allows them to take as long as necessary to get the first cut at the requirements right and/or to build a TS. These efforts are not projects since they do not have PWIs. The current wording would not "grandparent" these documents.

Proposed resolution:

Modify the wording of annex C to say: "This edition may be immediately implemented by any project interested in doing so. The use of this edition is mandated only for documents submitted for stage 30 ballot one year after the approval of this document by SC4. Projects that have not yet produced a stage 30 document at the time of this document's approval by SC4 are strongly encouraged to use this edition."

Actual resolution:

Issue accepted. Resolution is as follows: Second edition applies to NWIs approved after the approval/publication of the revised guidelines. APs not yet at CD need not use 2nd edition guidelines but are encouraged to do so. Other projects may use new guidelines at their discretion (but cannot mix requirements of 1st and 2nd editions). Implies a checklist question for APs to indicate which edition of the MT/MS guidelines applies.

Issue 08 (USA-3) *Status* In-work

Author: not specified *Disposition:* Accepted

Clause: 9.6 (EXAMPLE 1 and EXAMPLE 2)

Class'n: Major Technical

Description:

In these two examples, when the template concept is applied, from example 1 [object_role.description ='.UNUSED.']} will always apply with the use of this template even though a different VALUE for object_role.description is required.

Proposed resolution:

Expand the example to show several different mappings using the same template with different values for the argument.

Actual resolution:

Accept proposed resolution - additional examples to be produced, showing full power of the template approach.

Issue 09 (USA-4) *Status* Closed

Author: not specified *Disposition:* Deferred

Clause: 4

Class'n: Major Technical

Description:

The rules for text substitution when a template is invoked are not precisely spelled out. All the text says is: "A signature is the short-hand description of a template body. A signature can be replaced with the corresponding template body verbatim, except that its parameters need to be substituted by the values from the signature." This ignores various issues such as:

(1) What happens if a template call is embedded in the body of another template definition?
(2) If a parameter appears in a template body immediately adjacent to some other token, does it expand to a single token or to two tokens? In other words, if I have a template with signature /T(a)/, the body of T contains foo_&a, and I invoke the template as /T(bar)/, does this expand to foo_bar or foo_ bar? The former would be more useful, but then suppose I want to expand to

barhab. The parser would be unable to recognize &ahab as parameter &a concatenated with 'hab', and would instead look for parameter &ahab.

Proposed resolution:

Use an existing macro language with well-defined semantics as the basis for the template notation.

Actual resolution:

Accepted in principle; however, no public-domain macro language has been proposed to meet the requirement.

Issue 10 (USA-5) *Status* Closed

Author: not specified *Disposition:* Deferred

Clause: 9

Class'n: Major Technical

Description:

The mapping table language is not formally defined, is unclear, and is difficult to machine process.

Proposed resolution:

Define a formal grammar for the language, and explicitly show operators (AND, OR, ANDOR, etc.). In other words, instead of having:

aaaaa
[bbbbb]
[ccccc]
ddddd

e might have something like:

aaaaa
WHERE((bbbbb) and (ccccc))
ddddd

Actual resolution:

Deferred until such time as a major change to the mapping specification/reference path syntax is proposed. This is not in the scope of the second edition.

Issue 11 (USA-6) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: not specified

Class'n: Major Technical

Description:

The document is not clear about how to map application objects that are subtypes of other application objects.

The Mapping Guidelines contain the following statement:

"NOTE - The cardinalities and inheritance documented in the information requirements of clause 4 of the AP are not visible in the mapping specification. The intent is that the inheritance in the ARM is preserved in the mapping, though the current mapping specification syntax provides no means to explicitly show this. For example, the mapping of an assertion from a supertype to another application element would apply also to subtypes of that supertype. Readers of the mapping specification must look to clause 4 of the AP for the cardinalities and subtype/supertype relationships among the application elements."

However, this leaves open the following questions:

1. If entity B inherits attributes a1, a2 and a3 without change from entity A, should there be rows for a1, a2 and a3 included under the mapping of B? Clause 6.5, "Subtype and supertype cross reference", provides a template that allows one to say that the mapping of an attribute is the same as for a supertype, but it does explicitly state when inherited attributes need to be placed in the mapping specification.

2. If A is an abstract supertype, should it appear in the mapping specification? If A is abstract, but has non-abstract subtypes B, C, D and E, rather than having to repeat the mapping for a1, a2 and a3 under the MT entries of B, C, D and E, it would be convenient to put them under A, and use the SUPERTYPE template. However, the existence of a mapping specification entry for A would lead the reader to believe that the mapping of A is a valid partial population of the AIM (which it is not if A is abstract).

3. What does it mean to "look to clause 4 of the AP for the cardinalities and subtype/supertype relationships among the application elements"? Does that mean that clause 4 contains additional constraints not captured in the AIM or mapping specification? If so,what are those constraints?

Proposed resolution:

Clarify the handling of ARM supertype/subtype relationships.

Actual resolution:

See resolution documented for NOR-3.

Issue	**12 (USA-7)**	***Status***	**In-work**
Author:	not specified	*Disposition:*	Accepted
Clause:	9.1.6		
Class'n:	Minor Technical		

Description:

It is not clear why square brackets are needed. What is the difference between the following two paths?

aaaaa
[bbbbb]

[ccccc]
ddddd

and

aaaaa
{bbbbb}
{ccccc}
ddddd

The use of the AND-syntax should be deprecated in accordance with the decisions taken in the Bordeaux meeting on mapping table improvements (minutes QC N155).

Proposed resolution:

Add normative text deprecating the use of the AND-syntax.

Actual resolution:

Conclusions from Bordeaux need to be reassessed (AND in AIM element vs. AND in reference path). Address this issue by clarifying the difference and add more examples. Emphasise that mapping rules define constraints; AND case requires two paths to be present.

Issue	**13 (USA-8)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	4		
Class'n:	Minor Technical		

Description:

"A mapping template is conceptually similar to a programming language subroutine." A mapping template is actually closer to a macro than a subroutine.

Proposed resolution:

Change "subroutine" to "macro".

Actual resolution:

Accept proposed resolution.

Issue	**14 (USA-9)**	***Status***	**In-work**
Author:	not specified	*Disposition:*	Accepted
Clause:	4		
Class'n:	Minor Technical		

Description:

The term "signature" is used to mean two things: the definition of the template name and list of parameters, and an invocation of the template somewhere in an AIM element or reference path. This is confusing.

Proposed resolution:

Use different terms for these two things.

Actual resolution:

Issue is accepted. Agreed to use the terms "formal parameter" (in template definition) and "value parameter" (in template invocation). Final text still to be developed - still need to identify/agree on a name to use for invocation.

Issue	**15 (USA-10)**	***Status***	**In-work**
Author:	not specified	*Disposition:*	Accepted
Clause:	4		
Class'n:	Minor Technical		

Description:

In example 2, why does arm_role appear in quotes in the signature? If this is an attempt to make the template language strongly typed by declaring arm_role to be a string, it needs to be thought out more carefully. Most macro langauges that I am aware of are not strongly typed.

Proposed resolution:

Remove the quotes.

Actual resolution:

Accept proposed resolution - use the simple lexical substitution paradigm, so that for a string value there will be no quotes in the signature but they will be included in the invocation. In the definition of a template it can be stated (in text) that a value parameter is intended to be a string. Resolution requires more than just removing the quotes here - further text to be developed.

Issue	**16 (USA-11)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	5		
Class'n:	Minor Technical		

Description:

Example 1 deals with the case where there are three assertions between a pair of application objects, each representing a different ARM attribute. However, the text does not say what happens when a single ARM attribute maps to several assertions. This could be the case if the ARM attribute is a SELECT type. Consider the following example:

```
TYPE author_select = SELECT (person, organization, person_and_organization)
END_TYPE;

ENTITY document;
  has_author: author_select;
END_ENTITY;
```

Proposed resolution:

State that in this case, there is a separate subclause for each assertion.

Actual resolution:

Accept proposed resolution.

Issue 17 (USA-12) *Status* Closed

Author: not specified *Disposition:* Deferred

Clause: general

Class'n: Minor Technical

Description:

It should be possible to feed an entire mapping specification into a parser, just as we feed EXPRESS. The fact that we mix English text and mark-up with the actual specification makes it harder.

Proposed resolution:

Define a formal language for mapping specifications. Use start-comment and end-comment symbols to switch between the formal language and the English text, as we do for EXPRESS code now.

Actual resolution:

Deferred on the basis that the ISO requirement is still for a document (anything delivered electronically can only supplement what is on paper). Also time constraints on completion of this edition for publication - this requirement is likely to be satisfied by future guidelines for use of EXPRESS-X in place of MT/MS syntax.

Issue 18 (USA-13) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: 6.5

Class'n: Minor Technical

Description:

The notation "/SUBTYPE(chamfer)/5.1.x.y" is clumsy.

Proposed resolution:

Change to: "/SUBTYPE(chamfer)/ (See 5.1.x.y.)." But see issue USA-MAP-12.

Actual resolution:

Issue accepted - use resolution to UK-27.

Issue 19 (USA-14) *Status* Closed

Author: not specified *Disposition:* Rejected

Clause: 7

Class'n: Minor Technical

Description:

"The source entry contains an ISO standard number and part number for each AIM element provided." However, it does not provide the source for each entity in the reference path.

Proposed resolution:

Provide a table with the name and source for each entity in the AIM element or Reference path subclause. Or collect all these into a separate table and remove from this part of the mapping specification.

Actual resolution:

Rejected as unfeasible - this would create addition work for developers/editors without obvious benefit. Information about the source of AIM entity data types is available elsewhere in the AP document.

Issue 20 (USA-15) *Status* Closed

Author: not specified *Disposition:* Rejected

Clause: 9.1.3

Class'n: Minor Technical

Description:

The equal sign is overloaded to mean three things:

A = B

means that A is a select type that has B as a member.

A.x = 'b'

means that A is an entity type that has an attribute x, and that the value of x is constrained to be 'b'.

A[i] = B

means that A is an aggregate whose member is being constrained to be of type B.

It would make machine processing easier if different symbols were used for these different meanings.

Proposed resolution:

Use different symbols.

Actual resolution:

Different usages of = are clear from context - EXPRESS has similar "overloading" of symbols.

Issue 21 (USA-16) *Status* Closed

Author: not specified *Disposition:* Deferred

Clause: 9.1.3

Class'n: Minor Technical

Description:

It is not clear why line 5 is needed in the following reference path.

1 {compound_representation_item
2 compound_representation_item.item_element ->
3 compound_item_definition
4 compound_item_definition = list_representation_item
5 list_representation_item
6 list_representation_item[i] = representation_item
7 representation_item =>
8 measure_representation_item}

Proposed resolution:

Inclusion of AIM entity data type names as well as the entity.attribute references is valid but unnecessary (see also the LKSoft proposal which simplifies reference paths by excluding these). Depending on final agreement on syntax definition, these will either be eliminated entirely, or included in the spec. with their usage deprecated. The latter approach would allow current mapping specifications to remain valid.

Actual resolution:

Issue deferred. No proposal exists for changes to the syntax that has received significant review, no change should be made at this time. The current approach is based on the idea that each entry in the reference path makes one statement about the instance(s) involved in the mapping. In the case presented in this issue, line 4 states that list_representation_item is selected as a compound_item_definition, and line 6 states that some element of the list_representation_item is a (constraint) representation_item. Line 5 asserts that an instance of list_representation_item participates in the mapping - this links 4 and 6 making the mapping specification complete.

Issue	**22 (USA-17)**	***Status***	**In-work**
Author:	not specified	*Disposition:*	Accepted
Clause:	9.2, 9.3		
Class'n:	Minor Technical		

Description:

If an attribute of an ARM entity points to another entity, then the relationship is captured both as an application element and as an application assertion. It would be redundant to put two entries in the mapping table for such a case. Current practice seems to be to put it in as an assertion, with the text "(as <attribute name>)", but this is not clearly spelled out anywhere.

Proposed resolution:

Issue is accepted - arises from EXPRESS ARMs where relationships have the same syntax as attributes. Both the mapping specification guidelines and the SDs need to address the inclusion of the "(as <attribute name>)" form. One approach is to always include this for relationships; the other is to use this only to disambiguate cases where there are two or more distinct relationships from one application object to another.

Actual resolution:

Text to be added stating that for EXPRESS(-G) ARMs, simple attributes map as attributes, relationships map as assertions. Always include the relationship name as part of the subclause heading for the mapping of relationships.

Issue	**23 (USA-18)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	4		
Class'n:	Editorial		

Description:

Confusing to start body of document with Mapping Template Clause.

Proposed resolution:

Add introductory paragraph describing change to previous Mapping Table format to use Clause structure, and mention of apping Templates. Move details of Mapping Templates (current Clause 4) to after description of Clause structure.

Actual resolution:

Accept proposed resolution to USA-26 - move the material on templates to an Annex.

Issue	**24 (USA-19)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	4 (page 5)		
Class'n:	Editorial		

Description:

Replace GROUPS Template with more understandable example.

Proposed resolution:

Replace the example Mapping Template of Example 2 with a simpler example. Proposed new example:

Signature:

/PERS_ORG_ASSGN(t, role)/

Parameter definition:

t: entity type to which a person_and_organization is to be assigned
role: role of the person in the context of this assignment

Template body:

Person_and_organization_item = &t
person_and_organisation_item <-
applied_person_and_organization_assignment.items[i]
applied_person_and_organization_assignment <=

person_and_organization_assignment
{person_and_organization_assignment.role ->
person_and_organization_role
person_and_organization_role.name = &role}
person_and_organization_assignment
person_and_organization_assignment.assigned_person_and_organization
person_and_organization

Example:

PERS_ORG_ASSGN<â€™document authorâ€™>

A person_and_organization_assignment is applied to a document entity to identify the author.

Actual resolution:

Accept proposed resolution.

Issue	**25 (USA-20)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	Standing document title		
Class'n:	Editorial		

Description:

There has never been a Guidelines for the development mapping specification 1st edition how can there be a 2nd edition? The title previous was Guidelines for the development mapping tables. The titles have changed as will as much of the content.

Proposed resolution:

Remove 2nd edition from title and all other references in the Standing Document or put a statement on the cover saying this edition replaces <full title of 1st edition>.

Actual resolution:

Accept option #2.

Issue	**26 (USA-21)**	***Status***	**In-work**
Author:	not specified	*Disposition:*	Accepted
Clause:	Document organization		
Class'n:	Editorial		

Description:

The template concept is introduced too early in the document. The flow of information is not smooth from one idea/concept to the next. In some cases the logic of the specification is hard to follow or understand. As a new AP developer I would have a VERY difficult time understanding what to do specifically or what is required as content in Clause 5.1.

Proposed resolution:

Rework the document and add many examples that build logically on each other, starting with Clause 4 through the Annexes.

Actual resolution:

See resolutions to USA-18 and USA-26, and also UK-12. Final review of the updated guidelines will have to assess its overall readablity/utility (especially to new AP developers).

Issue **27 (USA-22)** ***Status*** **In-work**

Author: not specified *Disposition:* Accepted

Clause: 3

Class'n: Editorial

Description:

Need definitions for mapping specification, signature, SC4 common resources, root node, UNUSED

Proposed resolution:

Add these terms to Clause 3.n. Agreed to add definitions of mapping specification, signature, common resource (WG12 definition, should be added in Part 1 edition 2). Also application element, which does not seem to be defined elsewhere. The use of UNUSED can be explained elsewhere - this is a standard value for attributes, not a term to be defined. Need to check document for usage of "root node" to see why/if this needs to be defined in clause 3.

Actual resolution:

mapping specification: element of an application protocol that shows how the interpretation of the integrated resources is used to meet the information requirements of the application

mapping signature: definition of the format to be used for a template call

common resource: part which contains EXPRESS constructs that define a valid description of product data that can be used or interpreted in all or a subset of SC4 standards

(This has been submitted in a SEDS issue against Part 1 - may need some further wordsmithing).

root node: entity data type declared in an application interpreted construct that localizes constraints pertaining to that application interpreted construct

Issue **28 (USA-23)** ***Status*** **Closed**

Author: not specified *Disposition:* Accepted

Clause: 6.2

Class'n: Editorial

Description:

Use of angle brackets < >

Proposed resolution:

Add example for the use of angle brackets < > to Annex B; to show in context of a mapping specification with Annex A

Actual resolution:

Revised resolution to this issue from QC meeting, March 2001: it is safer to retain the <> syntax, even though its use is obscure and we may not be able to provide an example. The explanation of the () syntax needs to state explicitly that this is XOR.

Issue	**29 (USA-24)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	9.1.7		
Class'n:	Editorial		

Description:

The use of the asterisk *; not sure what this is really to do. How does example 1 and example 2 relate to each other? Or don't they? Example 1 has {draughting_callout_relationship.name = 'prefix'. Where in example 2 {draughting_callout_relationship *}

Proposed resolution:

Actual resolution:

Provide a better example, showing the use of braces to enclose the repeated structure, not just one part of it. QC meeting March 2001: agreed to make this more explicit, choice between simple case (one relationship) and repeated (two or more). State that start and end of the path must be instances of the same entity data type. Ref path would be:

(A <-
B.relating
B
B.related ->
A)
({A <-
B.relating
B
B.related ->
A <-
B.relating
B
B.related ->
A} *)

Issue	**30 (USA-25)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	Entire document		
Class'n:	Editorial		

Description:

There are several instances in the document where the requirements of ISO Directives Part 3 (ID3) and SC4 SD have not been applied. NOTES, EXAMPLES, boldface usage with plurals of Entities/attributes, upper/lower case usage.

Proposed resolution:

Apply ID3 and SD requirements to the Standing Document. Use Figures along with the examples so that indented text can be distinguished from the body text of the standing document.

Actual resolution:

Accept proposed resolution. Use shaded boxes for example text, as in the Supplementary Directives.

Issue	**31 (USA-26)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	4		
Class'n:	Editorial		

Description:

The template concept is introduced too early in the document. Furthermore, the template concept is immature and not well
enough tested. It is premature to standardize it now.

Proposed resolution:

Move clause 4 to a normative annex. State in the annex that templates are experimental, use of them is optional, and the template language may change.

Actual resolution:

Accept proposed resolution.

Issue	**32 (USA-27)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	4 (page 4, last sentence)		
Class'n:	Editorial		

Description:

Incomplete sentence.

Proposed resolution:

Delete last four words.

Actual resolution:

See NOR-2. Accept proposed resolution.

Issue	**33 (USA-28)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted

Clause: 5 (Page 8, NOTE)

Class'n: Editorial

Description:

Meaning of note confusing in relation to Clause 6.5 discussion of SUPERTYPE and SUBTYPE templates.

Proposed resolution:

Refer from the NOTE to Clause 6.5.

Actual resolution:

See resolution to NOR-3.

Issue 34 (USA-29) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: 6 (page 8)

Class'n: Editorial

Description:

First sentence of Clause 6 incomplete.

Proposed resolution:

Add the word "maps" to the end of the sentance to complete it.

Actual resolution:

Accept proposed resolution.

Issue 35 (USA-30) *Status* In-work

Author: not specified *Disposition:* Accepted

Clause: 6 (5th sentence)

Class'n: Editorial

Description:

Unclear of meaning of "close relationship".

Proposed resolution:

Clarify if Mappings must be exact, or if portions of the References Paths or Mapping Rules may differ.

Actual resolution:

Wording to be reviewed/revised.

Issue 36 (USA-31) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: 4

Class'n: Editorial

Description:

The notational symbols on page 5 appear that a colon is part of the notation symbol. Is that true? The examples to not show the colon with the notational symbol.

Proposed resolution:

If not true, then add some white space between the symbol and the colon.

Actual resolution:

Delete the colon as being confusing. This issue also need to be addressed in the Supplementary Directives.

Issue 37 (USA-32) *Status* In-work

Author: not specified *Disposition:* Accepted

Clause: 9.1.1

Class'n: Editorial

Description:

The asterisk * symbol is buried in text in clause 9.1.7

Proposed resolution:

Add * to the list of symbols

Actual resolution:

Add to the list of symbols, also add a separate subclause on the use of this symbol (but see also resolution to USA-24).

Issue 38 (USA-33) *Status* In-work

Author: not specified *Disposition:* Accepted

Clause: 5 (last note)

Class'n: Editorial

Description:

This NOTE should be made normative to this Standing Document

Proposed resolution:

Make it normative

Actual resolution:

Based on proposed resolutions to NOR-3 and QC-2, reword the text as appropriate for normative content.

Issue 39 (USA-34) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: 6.2

Class'n: Editorial

Description:

Proposed resolution:

Add two blank spaces before the subclause heading

Actual resolution:

Accept proposed resolution (see also UK-21)

Issue 40 (USA-35) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: Introduction

Class'n: Editorial

Description:

"The mapping specification documents the traceability of the application information requirements between the specification of
these requirements in clause 4 of the AP and the application interpreted model (AIM) that documents how standardized constructs are applied to satisfy these requirements in clause 5.2 of the AP." This is a run-on sentence and is ambiguous.

Proposed resolution:

Change to: "The mapping specification documents the traceability of the application information requirements between the specification of these requirements in clause 4 of the AP and the application interpreted model (AIM) in clause 5 of the AP. The mapping specification documents how standardized constructs are applied to satisfy the application information requirements."

Actual resolution:

Accept proposed resolution.

Issue 41 (USA-36) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: Introduction

Class'n: Editorial

Description:

"Specifics on style, format, required text, and other presentation issues are provided in the Supplementary directives for the drafting and presentation of ISO 10303, 2nd edition. Additional guidance on other areas of AP development is found in the Guidelines for development and approval of STEP application protocols." Should not the AIM Development Guidelines be cited as well?

Proposed resolution:

Add citation to AIM Development Guidelines.

Actual resolution:

Accept proposed resolution.

Issue **42 (USA-37)** ***Status*** **Closed**

Author: not specified *Disposition:* Accepted

Clause: general

Class'n: Editorial

Description:

Notes and examples do not follow the format now required by ISO CS (see QC N151). Although this is just an SC4 standing document, it should follow the proper format to avoid confusing AP developers.

Proposed resolution:

Follow the format given in QC N151 for notes and examples.

Actual resolution:

Accept proposed resolution (see also UK-10)

Issue **43 (USA-38)** ***Status*** **Closed**

Author: not specified *Disposition:* Accepted

Clause: 1

Class'n: Editorial

Description:

There appears to be a space missing betwen "in" and "Supplementary" in NOTE 1.

Proposed resolution:

Add the space.

Actual resolution:

Accept proposed resolution.

Issue **44 (USA-39)** ***Status*** **Closed**

Author: not specified *Disposition:* Accepted

Clause: 4

Class'n: Editorial

Description:

"The name is written in uppercase. It shall not begin with a number; else numbers may be included. No special characters shall be used except for underscore ("_"). The name is followed by the list of parameters, which is surrounded by parentheses. The parameters are separated by commas. Parameters are written in lowercase. No additional restrictions apply to parameter names; they are either EXPRESS identifiers or strings in quotes." The verbs "is" and "shall" are mixed in an apparently arbitrary manner.

Proposed resolution:

Use either "is" or "shall" exclusively.

Actual resolution:

Accept proposed resolution - use "shall".

Issue	**45 (USA-40)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Accepted
Clause:	5		
Class'n:	Editorial		

Description:

The application objects (i.e. entities and attributes) and assertions from clause 4 of the AP become subclause headings within the UoF mapping specification in accordance with the guidance provided in the Supplementary directives for the drafting and presentation of ISO 10303, 2 nd edition. Each application element from the application protocol appears as the heading of at least one subclause of the specification." The term "application element" is not defined anywhere.

Proposed resolution:

Change to: "The application elements consist of the application objects and assertions from clause 4 of the AP. Each application element becomes a subclause heading..."

Actual resolution:

Application element defined in clause 3.

application element: application object, attribute of an application object, or assertion of a relationship between two application objects

Issue	**46 (UK-1)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Deferred
Clause:	general		
Class'n:	Minor Technical		

Description:

These guidelines would be easier to use and to navigate if they were published in HTML.

Proposed resolution:

Convert to HTML.

Actual resolution:

Accepted as a good idea; however, implementation is left to the discretion of the editor depending on time/resources/tools available. Deferred.

Issue **47 (UK-2)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: Foreword

Class'n: Minor Technical

Description:

The statement that all the listed standing documents apply to the development of SC4 standards is not strictly correct.

Proposed resolution:

Divide this into two lists, one of those standing documents that apply to all SC4 standards (Handbook, Quality Manual, maybe also the Supplementary Directives), and one of the standing documents that apply only to ISO 10303.

Actual resolution:

Accept proposed resolution.

Issue **48 (UK-3)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: Introduction (second paragraph)

Class'n: Editorial

Description:

This is not a part of ISO 10303 therefore the reference to "This International Standard" is inappropriate.

Proposed resolution:

Change to "ISO 10303 is organized ..."

Actual resolution:

Accept proposed resolution.

Issue **49 (UK-4)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: Introduction (third paragraph, third sentence)

Class'n: Editorial

Description:

This sentence is poorly worded and is difficult to understand

Proposed resolution:

Replace by: "The mapping specification documents the correspondence between the information requirements of an AP (clause 4) and the application interpreted model (AIM, clause 5.2) that satisfies those requirements."

Actual resolution:

Issue accepted - see resolution to USA-35.

Issue	**50 (UK-5)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	Introduction (third paragraph, fourth and sixth sentences)		
Class'n:	Minor Technical		

Description:

Is the purpose of ths document guidance on the creation of mapping specifications, or on their documentation? The contents of the document primarily address the latter.

Proposed resolution:

In 4th sentence change "creation" to "documentation" and add a statement that the procedures and practices of interpretation that create the conrtent of the mapping specification are documented elsewhere. Delete the 6th sentence.

Actual resolution:

Accept proposed resolution, with rewording to be consistent with resolution to issue #56.

Issue	**51 (UK-6)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	Introduction (third paragraph, fifth sentence)		
Class'n:	Editorial		

Description:

Poor wording.

Proposed resolution:

Change to: "This document is also intended to help reviewers and implementors to understand mapping specifications."

Actual resolution:

Accept proposed resolution.

Issue	**52 (UK-7)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	Introduction (fourth paragraph)		
Class'n:	Editorial		

Description:

Summary of changes should be a list, as per the guidance provided in the SDs for second editions of ISO 10303 parts.

Proposed resolution:

Change to unordered list

Actual resolution:

Accept proposed resolution.

Issue	**53 (UK-8)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	1 (and elsewhere) (5th item of first list)		
Class'n:	Editorial		

Description:

This document uses "entity" and "entities" as a shorthand for "entity data type(s)". This is erroneous use of terms and should be corrected.

Proposed resolution:

Change "entity" to "entity data type" and "entities" to "entity data types" throughout.

Actual resolution:

Accept proposed resolution.

Issue	**54 (UK-9)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	1 (NOTE 1)		
Class'n:	Minor Technical		

Description:

The second edition of the SDs is not yet ready for publication - is there a need for a separate QC document describing the changes to the SDs resulting from approval of the changes to the mapping specification?

Proposed resolution:

QC to discuss at the Charleston meeting.

Actual resolution:

The mapping specification guidelines and the supplementary directives are both due to be completed at the QC meeting in March 2001. No need for a separate QC document on format and presentation of mapping specifications.

Issue	**55 (UK-10)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	1 (notes)		

Class'n: Editorial

Description:

Format of these (and other) notes is incorrect.

Proposed resolution:

Remove dash, check font size and indentation.

Actual resolution:

Accept proposed resolution - see also USA-37.

Issue 56 (UK-11) *Status* Closed

Author: Fowler, Julian *Disposition:* Accepted

Clause: 1 (NOTE 2)

Class'n: Minor Technical

Description:

The referenced document "Guidelines for application interpretation" exists only in draft/incomplete form, and no resources have been made available to QC that allow for its completion. This reference therefore raises unjustified expectations.

Proposed resolution:

Remove the reference, or replace it by one that recognizes the actual status of the Guidelines/Procedures for application interpretation.

Actual resolution:

Delete the references to this document.

Issue 57 (UK-12) *Status* Closed

Author: Fowler, Julian *Disposition:* Accepted

Clause: missing clause

Class'n: Minor Technical

Description:

There should be an initial clause ("Overview", or "Fundamental concepts and assumptions") immediately after clause 3 that provides an introduction to mapping specifications. Some of the material currently in the Introduction may serve as a basis for this.

Proposed resolution:

Add such a clause (approx. 1 page should provide the appropriate level of detail) explaining in particular how the mapping specification asserts relationships between instance populations of the ARM and instance populations of the AIM.

Actual resolution:

Accepted - issue author to draft and circulate a proposal for this new clause.

Issue **58 (UK-13)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 4

Class'n: Minor Technical

Description:

This clause is misplaced.

Proposed resolution:

Move to after current clause 9.

Actual resolution:

See resolution to USA-26 - this will be moved to an Annex.

Issue **59 (UK-14)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 4 (first paragraph)

Class'n: Editorial

Description:

This paragraph is a mixture of what templates are, what they are similar to, and how they are used.

Proposed resolution:

Separate into two or three separate paragraphs, starting with a statement of what templates are, followed by a description of their use and their intended benefits.

Actual resolution:

Accept proposed resolution.

Issue **60 (UK-15)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 4 (paragraph following EXAMPLE 1, penultimate sentence)

Class'n: Major Technical

Description:

This statement is incorrect. In template definitions, there is no technical reason to restrict parameter names to lower case (although it may be good practice to do so). Parameter values will either be entity data type names or literals, and may include upper case characters is they are present in the entity data type name or the literal required.

Proposed resolution:

Change last two sentences to a statement that the value of a template parameter is either an entity data type name or a string literal, and reference the clauses of Part 11 that define the character set constraints that apply to each.

Actual resolution:

Accept proposed resolution.

Issue **61 (UK-16)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 4 (EXAMPLE 2)

Class'n: Editorial

Description:

Boilerplate text for templates needs to be reviewed and agreed.

Proposed resolution:

Actual resolution:

Boilerplate text included in the Supplementary Directives (see QC N200) and referenced from this document.

Issue **62 (UK-17)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 5 (first paragraph)

Class'n: Minor Technical

Description:

The revised structure for mapping specifications allows the mapping for each application object to be documented as part of the ao description, i.e., merging clauses 4.2/4.3/5.1).

Proposed resolution:

Raise as a SEDS issue against the AP Guidelines as soon as this document is approved.

Actual resolution:

Accept proposed resolution - action on the issue author.

Issue **63 (UK-18)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 5 (EXAMPLE 2 and accompanying text)

Class'n: Major Technical

Description:

A more formal approach needs to be developed for handling multiple mapping cases - the current method largely relies on a human reader matching up # references.

Proposed resolution:

Although it may be more verbose, consider documenting each alternative separately, i.e.,:

5.1.x.y application object

#1: case 1

AIM element
Source:
Rules:
Reference path:

#2: case 2

AIM element:
Source:
Rules:
Reference path:

etc

Actual resolution:

Proposed resolution accepted - example provided in the SDs (QC N200). Documented cases should be exclusive and should be complete.

Issue	**64 (UK-19)**	***Status***	**In-work**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	6.4		
Class'n:	Major Technical		

Description:

Does "IDENTICAL MAPPING" imply that the inverse mapping is incomplete and/or ambiguous? If two application objects AO1 and AO2 both map to the same AIM entity data type AIM1, how can the ARM "view" be recovered from the population of AIM1 in an exchange structure or database?

Proposed resolution:

Add any necessary text to describe how the population of AIM1 relates to AO1 and AO2 in this case

Actual resolution:

Add text that states that IDENTICAL MAPPING states that both application objects involved in an assertion map to the same instance, and that these must be disambiguated (in the ARM "view") by other data or reference paths.

Issue	**65 (UK-20)**	***Status***	**In-work**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	6 (First paragraph, fifth sentence)		

Class'n: Major Technical

Description:

This description of the /SUBTYPE/ and /SUPERTYPE/ templates is misleading.

Proposed resolution:

Change to: "The mapping of an application element may be asserted to be the same as that for a generalized application element (supertype) in the ARM using the predefined /SUPERTYPE/ template (see ???). Similarly, the mapping of an application element may be asserted to be the same as that for one or more specialized application elements (subtypes) in the ARM using the predefined /SUBTYPE/ template (see ???)/"

Actual resolution:

Based on the resolution to NOR-3, the proposed resolution here appears to be valid and correct.

Issue 66 (UK-21) *Status* Closed

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.1, 6.2

Class'n: Editorial

Description:

Insufficient whitespace between the text of 6.1 and the heading of 6.2

Proposed resolution:

Actual resolution:

Accept proposed resolution - see also USA-34.

Issue 67 (UK-22) *Status* In-work

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.2 (first paragraph)

Class'n: Major Technical

Description:

The example cited here is unclear. Since the measure_with_unit entity data type defined in ISO 10303-41 by definition has both a value_component and a unit_component it is unclear from the text what the benefit of this style of mapping is.

Proposed resolution:

Either replace by a clearer example, or expand this one explaining that such a mapping is useful if the ARM does not separate the value and unit concepts.

Actual resolution:

Agreed to substitute or add a better example. Examples proposed are mappings of change.date from AP227ed1, catalogue_marking from AP224, …

Issue **68 (UK-23)** ***Status*** **In-work**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.2 (EXAMPLE on page 10)

Class'n: Major Technical

Description:

This example is unclear - how can one AIM entity data type (point) have two difference sources??

Proposed resolution:

Please clarify.

Actual resolution:

(a) Use the date/time example from AP227 (seen issue 67) which has OR as well as AND. (b) Use Feature_pattern mapping from AP224 and AP214.

Issue **69 (UK-24)** ***Status*** **In-work**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.3 (First paragraph)

Class'n: Major Technical

Description:

This subclause needs to state that a PATH mapping need not relate to instances of different AIM entity data types - it may be between different instances of the same entity data type.

Proposed resolution:

Add appropriate text.

Actual resolution:

Accept proposed resolution.

Issue **70 (UK-25)** ***Status*** **In-work**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.3 (EXAMPLE and accompanying text)

Class'n: Major Technical

Description:

The reason for this type of mapping is unclear, and the solution presented is not a formal description of the mapping.

Proposed resolution:

Please clarify

Actual resolution:

Add clarification and examples, based on slides presented at Funchal meeting.

Issue **71 (UK-26)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.5 (paragraph before EXAMPLE 1)

Class'n: Editorial

Description:

All but the first sentence of this paragraph are part of the example, not normative text.

Proposed resolution:

Move text to the example.

Actual resolution:

Accept proposed resolution.

Issue **72 (UK-27)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 6.5 (EXAMPLE 1)

Class'n: Major Technical

Description:

The syntax for referencing clauses in templates needs to be clarified, especially if templates are to be fully processable by software.

Proposed resolution:

On the assumption that the template parameter value is an unambiguous reference, introduce a "tail remark" element to the mapping specification syntax, so that this example becomes:/SUBTYPE(chamfer)/ -- 5.1.x.y

Actual resolution:

Accept proposed resolution, with the change to: "/SUBTYPE(chamfer)/ -- (see 5.1.x.y)" to comply with ISO Directives. Inclusion of the cross-reference as a tail remark is optional.

Issue **73 (UK-28)** ***Status*** **Closed**

Author: Fowler, Julian *Disposition:* Accepted

Clause: 8

Class'n: Major Technical

Description:

Review of the mapping specification is made easier if the name of the rule appears, rather than/as well as its clause reference. Omitting the clause reference is likely to be an easier solution for editors.

Proposed resolution:

Change requirement so that the Rule(s) element of the mapping specification includes the identifier(s) of any applicable AIM global rules, followed (optionally) by the clause reference for the rule declaration (in a tail remark as proposed above)

Actual resolution:

Accept proposed resolution.

Issue	**74 (UK-29)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Deferred
Clause:	9.1.1 (4th paragraph)		
Class'n:	Major Technical		

Description:

Should newline have syntactic significance (except as whitespace)? Isn't the precription here more presentation/layout?

Proposed resolution:

To be considered as part of the issue(s) related to formalizing the syntax of the mapping specification.

Actual resolution:

Deferred until the mapping specification syntax is finalized.

Issue	**75 (UK-30)**	***Status***	**In-work**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	general		
Class'n:	Major Technical		

Description:

The mapping specification should be capable of verification and processing by suitable computer software – this demands a formal syntax.

Proposed resolution:

Add a formal syntax for the mapping specification as a normative annex to this document.

Actual resolution:

See USA-1.

Issue	**76 (UK-31)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Accepted
Clause:	general		
Class'n:	Major Technical		

Description:

Understanding and improving the mapping specification requires a formal definition of its semantics.

Proposed resolution:

Develop a formal definition (using as a basis and working with the WG10 activity on mapping for ISO 18876) and include this as an informative annex to these document.

Actual resolution:

Partially resolved by the development and inclusion of a fundamental concepts clause (see UK-12); otherwise deferred (at least until such time as the ISO 18876 project delivers relevant/usable material for STEP AP mappings).

Issue	**77 (UK-32)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Deferred
Clause:	9 (additional subclause required)		
Class'n:	Major Technical		

Description:

In the development of application modules it has been found necessary to include global rules as part of EXPRESS ARMs. Such rules need to be mapped to corresponding elements of the AIM (which could be global or local rules).

Proposed resolution:

Develop an additional subclause for inclusion as part of clause 9.

Actual resolution:

Issue deferred until after approval/publication of modules guidelines document.

Issue	**78 (UK-33)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Deferred
Clause:	4		
Class'n:	Major Technical		

Description:

In order to allow templates to be reused, it should be possible for one AP (or application module) to use a template that is defined in another AP or module.

Proposed resolution:

Modify the proposed structure for the documentation of templates so that definitions in other parts of ISO 10303 can be referenced. This will impact on the SDs as well as the mapping specification guidelines.

Actual resolution:

Accept proposed resolution - text for the mapping specification guidelines and for the SDs to be developed.

QC meeting San Francisco: Templates could be defined in a common TS document rather than

adding to cross references between APs. Impact of this approach needs to be assessed; hence issue deferred.

Issue	**79 (UK-34)**	***Status***	**Closed**
Author:	Fowler, Julian	*Disposition:*	Deferred
Clause:	general		
Class'n:	Major Technical		

Description:

Mapping specifications should be published in digital form as well as on paper.

Proposed resolution:

As and when a formal syntax is available that allows mapping specifications to be verified and processed by suitable computer software, publish mapping specifications on SOLIS (as is already done with EXPRESS schemas) and reference these via a URL.If the AP or AM makes use of templates, the mapping specification should be published in two forms:

- "short form" incorporating templates
- "long form" with all templates expanded

Actual resolution:

Deferred until formal syntax is developed and approved - see also USA-12.

Issue	**80 (SWE-1)**	***Status***	**Closed**
Author:	not specified	*Disposition:*	Rejected
Clause:	general		
Class'n:	Major Technical		

Description:

The hierarchy of the subclauses in the document seems to be possible to improve. There are too many sub levels in clause 5 of an AP-part.

Proposed resolution:

Here follows a proposal to hierarchical improvement:

5 Application interpreted model
5.1 Mapping table
Paragraph to reference the UoF in clause 4.1 can be inserted here
Paragraph to reference GROUPS used in the mapping can be inserted here
5.1.x Entity mapping
The entity mapping subsubclause number (x) shall be the same number as in clause 4.2.
5.1.x.y Assertion mapping
5.1.z GROUPS
5.1.z.v Groups definition
5.2 AIM Express short listing

This hierachy simplifies the task to find entity mappings when you see the entity definition. The

UoF has been made less important in this proposal, because you don't know the UoF for a specific entity, but you know the name.

Groups are defined after entity mapping as the last subsubclause of 5.1.

Actual resolution:

Rejected on the basis that a single application object may appear in more than one UoF - mappings may then differ depending on the context of each UoF. Mapping per UoF is also more consistent with the modularization approach.

Issue 81 (QC-1) *Status* In-work

Author: Radack, Gerald *Disposition:* Accepted

Clause: not specified

Class'n: Major Technical

Description:

The mapping table guidelines (QC N1029) do not say whether it is permissible to map to a derived attribute. The situation arose in mapping to entities in the second edition of Part 41, for example the role attribute of action_request_assignment.

```
ENTITY action_request_assignment
  ABSTRACT SUPERTYPE;
  assigned_action_request : versioned_action_request;
DERIVE
  role                : object_role := get_role (SELF);
WHERE
  WR1 : SIZEOF (USEDIN (SELF, 'BASIC_ATTRIBUTE_SCHEMA.' +
                'ROLE_ASSOCIATION.ITEM_WITH_ROLE')) <= 1;
END_ENTITY; -- action_request_assignment
```

Note that the role attribute is not a string, but another entity.

Proposed resolution:

Actual resolution:

Add a section to the guidelines covering this area, stating that the target for a mapping should always be an explicit attribute in the AIM. Additional information about DERIVEd attributes is always available from the AIM/IR declarations.

Issue 83 (QC-2) *Status* Closed

Author: not specified *Disposition:* Accepted

Clause: general

Class'n: Major Technical

Description:

Issue from QC N135 (N533-5): It should be specified whether assertions between two entities also apply to descendants of the entities specified in the assertions. It should also be specified how cardinality relates to the descendants. It is difficult to follow a complete concept in the mapping table when additional attributes and assertions are inherited from supertypes. Subtype/supertype relationships must be shown. Without these relationships, references to the ARM are required to understand the mapping. Issue #11 noted in annex C needs to be resolved.

Proposed resolution:

Conclusions of Charleston discussions: best/simplest approach is to follow what has been done in AP214, which is to add a reference path mapping rule that captures the relationship between the mappings of the ARM sub/supertypes. This will have to be documented in the guidelines. May also need to allow for the mapping of the sub/supertype relationship as an assertion (at least in the cases where the corresponding relationship in the AIM is not sub/supertytpe). To be discussed over QC exploder.

Actual resolution:

Use the second alternative outlined above, I.e., map the supertype/subtype relation as an assertion (in the case where they do not map to a supertype/subtype structure in the AIM).